

APPENDIX C. U.S. FISH & WILDLIFE SERVICE LETTER and OTHER LETTERS



United States Department of the Interior Fish and Wildlife Service



Bloomington Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

January 24, 2005

Mr. Robert Waltz
Indiana DNR, Division of Entomology and Plant Pathology
402 West Washington Street, Room 290
Indianapolis, Indiana 46204

Dear Mr. Waltz:

The U.S. Fish and Wildlife Service (FWS) has reviewed your letter of January 10, 2005 regarding the 2005 gypsy moth treatment program for 33 sites in 11 Indiana counties (Allen, DeKalb, Elkhart, Kosciusko, LaGrange, LaPorte, Marshall, Noble, Porter, St. Joseph, Whitley). We are submitting the following comments on the 2005 program.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The plan submitted in your letter includes aerial spraying of mating disruption pheromone flakes at 9 sites (31,393 acres), aerial spraying of *Bacillus thuringiensis* biological control (Btk) at 15 sites (including one core area site within a larger pheromone treatment area) (6609 acres), and ground application of Btk at 9 sites (103 acres).

Endangered butterflies

One of the proposed treatment methods, spraying with *Bacillus thuringiensis* (Bt), is of concern for 2 federally endangered species of Lepidoptera in Indiana, the Karner blue butterfly (*Lycaeides melissa samueulis*) and Mitchell's satyr butterfly (*Neonympha mitchelii*). The known occurrences of these 2 endangered species are in the northern portions of Lake and Porter Counties (Karner blue), and isolated locations in LaPorte and LaGrange Counties (Mitchell's satyr). The range of these species has not changed since our review of the 2004 gypsy moth program. Neither species is known to occur near the sites identified in your letter. Treatment with Disrupt II pheromone flakes, which are considered to be highly specific for gypsy moths, will have no adverse impacts on the federally listed butterflies.

Other Endangered Species

The proposed treatment sites are within the range of the federally endangered Indiana bat (*Myotis sodalis*), and federally threatened bald eagle (*Haliaeetus leucocephalus*) and copperbelly watersnake (*Nerodia erythrogaster neglecta*). We do not anticipate impacts on the forage base of bald eagles or copperbelly water snakes from any treatments at this time, since both species' diets consists mainly of vertebrates.

Indiana bats hibernate in caves, then disperse to reproduce and forage in relatively undisturbed forested areas associated with water resources during spring and summer. Young are raised in nursery colony roosts in trees, typically near drainageways in undeveloped areas. Prior to hibernation, Indiana bats feed intensively in forested areas near hibernacula in order to build up adequate fat reserves to survive hibernation.

The diet of Indiana bats consists entirely of insects. There is insufficient literature on the species composition of their diet to be definitive, however based on previous studies they appear to be somewhat opportunistic feeders. Some studies have found lepidopterans as a major dietary component, while others found a diet dominated by aquatic insects. Most of these studies were essentially "snapshots" and there is a lack of comprehensive, long-term studies. It is possible that under some circumstances extensive elimination of a broad range of lepidopteran species over a large habitat area has the potential to adversely affect the food base of an Indiana bat nursery colony. This concern increases greatly with the use of Dimilin (which will not be used in the 2005 program) because it kills a much broader range of insects. All of the Btk ground treatment sites and most of the current Bt aerial treatment sites are limited to relatively small areas of Indiana bat habitat, however based upon the aerial photos you provided we identified a few sites where substantial amount of forest habitat occurs within an aerial treatment area. These sites are listed below in descending size of affected forest:

1. Elcona Country Club (Elkhart County) - 792 acre treatment site, 300-350 acres of forest (our estimate).
2. St. Joseph site (DeKalb County) - 912 acre treatment site, 250-300 acres of forest including a large component of forested wetland.
3. Merriam site (Noble County) - 364 acre treatment site, 200-250 acres of forest with a natural lake and a large component of forested wetland.
4. Cedarville site (Allen County) - 870 acre treatment site, 180-200 acres of wetland in several isolated blocks.
5. CR 64/51 site (DeKalb County) - 518 acre treatment site, about 100 acres of isolated forest blocks.
6. Brick Road site (St. Joseph county) - 406 acre treatment site, about 100 acres of forest in one block along a stream.

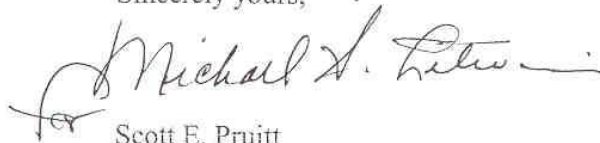
7. CR 300S site (Noble Count) - 228 acre treatment site, about 80 acres of forest.

Since the link between loss of a lepidopteran forage base for Indiana bats and adverse effects on the species is uncertain, we conclude that the 2005 program is not likely to adversely affect any of these listed species. However, to minimize interactions with foraging reproductive Indiana bats we recommend that aerial spraying at sites 1-4 above be conducted as early as possible in the season. The Indiana bat summer occupancy season is considered to begin in mid-April, probably slightly later in northern Indiana. If future programs incorporate Dimilin, or involve BT aerial application over very large areas of Indiana bat summer or winter habitat (or expand into the range of the federally endangered gray bat (*M. grisescens*), this issue will have to be reevaluated.

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act of 1973, as amended. If, however, new information on endangered species at the site becomes available or if project plans are changed significantly, please contact our office for further consultation.

For further discussion, please contact Mike Litwin at (812) 334-4261 ext. 205.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "Michael A. Litwin", is written over the typed name "Scott E. Pruitt".

Scott E. Pruitt
Field Supervisor

cc: Christie Keifer, Indiana Division of Fish and Wildlife, Indianapolis, IN
Katie Smith, Indiana Division of Fish and Wildlife, Indianapolis, IN
USFWS, Chesterton, IN
Phillip Marshall, IDNR, PO Box 218, Vallonia, IN 47281

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State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Water

Early Coordination/Environmental Assessment

DNR #:	ER-11383	Request Received: January 11, 2005
Requestor:	*Indiana Department of Natural Resources Bob Waltz Division of Entomology & Plant Pathology 402 West Washinton Street, W290 Indianapolis, IN 46204	
Project:	2005 Proposed Gypsy Moth Treatment Sites	
County/Site info:	Allen - DeKalb - Elkhart - Kosciusko - LaGrange - Lake - LaPorte - Marshall - Noble - Scott - St. Joseph - Whitley	
	The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.	
Natural Heritage Database:	<p>The Natural Heritage Program's data have been checked. Overall, the approach to use mating disruption pheromone flakes, as opposed to Btk or Dim, in areas with natural habitat seems prudent. Although we have very little data on lepidopterans in these areas, we know from surveys in similar habitats elsewhere, that rare butterflies and moths do use these habitats.</p> <p>Proposed Treatment Sites that will be treated using pheromone flakes, and that contain possibly sensitive habitat include: Lakeshore & Ridgemoor, 50 W, both in LaPorte County, and Bendix County Park, St. Joseph County (see attached maps and information). The Lakeshore & Ridgemoor site includes an area known as Stockwell Woods, which has significant dune forest. The 50 W site is located just south of the Springfield Fen Nature Preserve, which contains significant calcareous fen and associated species. The Bendix County Park contains Bendix Woods Nature Preserve, which contains high quality forest community.</p> <p>Adjacent to the Elcona County Club site, Elkhart County, is a natural area known as the Conley Property, which until recently was owned by The Nature Conservancy (see attached map and information). The Conley Area is located immediately east of the proposed treatment block. Because this block will be treated with Btk, we have some concerns for impacts to native lepidopterans at this location, but have no documented occurrences of any rare species in the area.</p>	
Fish & Wildlife Comments:	<p>The impacts of this gypsy moth control effort are impossible to predict. However, the devastating effects of uncontrolled gypsy moth infestations are well documented. At this time, no harm to state or federal listed species, resulting from the proposed control measures, is known or anticipated. The potential harm from the project is less than the potential harm to these same species from an uncontrolled gypsy moth infestation.</p> <p>The US Fish and Wildlife Service will provide their own comments regarding the impacts to federally listed species, especially the Karner blue and Mitchell's satyr butterflies that occur within counties to receive treatment.</p>	

Attachments: A - General Information

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State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Water

Early Coordination/Environmental Assessment

Contact Staff:

Christie L. Kiefer, Environ. Coordinator, Environmental Unit

Our agency appreciates this opportunity to be of service. Please do not hesitate to contact the above staff member at (317) 232-4160 or 1-877-928-3755 (toll free) if we can be of further assistance.



Jon W. Eggen
Environmental Supervisor
Division of Fish and Wildlife

Date: February 18, 2005

Mitchell E. Daniels, Jr., Governor



Indiana Department of Natural Resources

Division of Historic Preservation & Archaeology • 402 W. Washington Street, W274 • Indianapolis, IN 46204-2739
Phone 317-232-1646 • Fax 317-232-0693 • dhpa@dnr.IN.gov



January 28, 2005

Bob Waltz
Division of Entomology & Plant Pathology
Indiana Department of Natural Resources
402 West Washington Street, Room W290
Indianapolis, Indiana 46204

Federal Agency: U.S. Department of Agriculture

State Agency: Division of Entomology & Plant Pathology, Indiana Department of Natural Resources

Re: Gypsy moth eradication program for 2004

Dear Mr. Waltz:

Pursuant to Indiana Code 14-21-1-18 the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology ("DHPA") has conducted an analysis of the materials provided with your letter dated January 7, 2005, and received by the DHPA on January 11, 2005, for the above indicated project in Allen, DeKalb, Elkhart, Kosciusko, LaGrange, LaPorte, Marshall, Noble, Porter, St. Joseph, and Whitley counties, Indiana. Pursuant to Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f) and 36 C.F.R. Part 800, the staff of the Indiana State Historic Preservation Officer ("Indiana SHPO") has conducted an analysis of the same materials.

Refer to the following comments provided pursuant to Indiana Code 14-21-1-18:

We are not aware of any architectural sites, structures, or archaeological resources within the project area that are listed in the National Register of Historic Places, the Indiana Register of Historic Sites and Structures, or that might otherwise be considered historic as the term is used in Indiana Code 14-21-1-18.

In conclusion, it appears to us, based on what we currently know, that a certificate of approval will not be necessary for alterations to any known, historically or architecturally significant structures or sites.

Refer to the following comments provided pursuant to Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f) and 36 C.F.R. Part 800:

Based upon the documentation available at Indiana SHPO, we have not identified any historic buildings, structures, districts, objects, or archaeological resources listed in or eligible for inclusion in the National Register within the probable area of potential effects.

This information has been provided to assist the U.S. Department of Agriculture with the identification of historic properties. Upon completion of the remainder of its identification and evaluation efforts in 36 C.F.R. § 800.4 (a-c), the U.S. Department of Agriculture may analyze the information that has been gathered and proceed to consider the effects on historic properties. Thereafter, the U.S. Department of Agriculture will need to notify the Indiana SHPO and other appropriate parties of the results of its identification and evaluation efforts and its views on whether historic properties may or may not be affected with the appropriate documentation as stated in 36 C.F.R. § 800.4(d). Refer to the following comments:

- 1) If the U.S. Department of Agriculture believes that a determination of "no historic properties affected" accurately reflects its assessment, then it shall provide documentation of its finding as set forth in 36 C.F.R. § 800.11(d) to the Indiana SHPO, notify all consulting parties, and make the finding with supporting documentation available for public inspection (36 C.F.R. §§ 800.4[d][1] and 800.2[d][2]).

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- 2) If, on the other hand, the U.S. Department of Agriculture finds that an historic property may be affected, then it shall notify the Indiana SHPO, the public and all consulting parties of its finding and seek views on effects in accordance with 36 C.F.R. §§ 800.4(d)(2) and 800.2(d)(2). Thereafter, the U.S. Department of Agriculture may proceed to apply the criteria of adverse effect and determine whether the project will result in a "no adverse effect" or an "adverse effect" in accordance with 36 C.F.R. § 800.5.

We look forward to receiving notification of the U.S. Department of Agriculture's finding. *A copy of the revised 36 C.F.R. Part 800 that went into effect on August 5, 2004, may be found on the Internet at www.achp.gov for your reference.* If you have questions about the comments provided above, please call our office at (317) 232-1646. You may direct any questions concerning historic buildings or structures pertaining to this project to Karie A. Brudis. Questions pertaining to archaeological issues should be directed to Jim Mohow or Dr. Rick Jones.

Very truly yours,


for Jon C. Smith
Deputy State Historic Preservation Officer

JCS:KAB:JAM:jam